

TETHYIDAE IN GASTROPODS, SPONGES AND ASCIDIANS:
PROPOSALS TO REMOVE THE HOMONYMY. Z.N.(S.) 1780By the Secretary, International Commission on
Zoological Nomenclature

Abstract. The name TETHYIDAE has been used to denote three families. It is in long-continued use for the first two (in Gastropods and Sponges). This homonymy can be removed by the use of the plenary powers to rule that the stem of *Tethys* (the gastropod genus) is Tethyd - instead of Tethy-giving TETHYDIDAE. The family name in Ascidiaceans has long fallen into disuse, having been replaced by PYURIDAE. Here it is proposed to use the plenary powers to suppress the name of its type-genus, *Tethyum* Gunnerus, 1765.

In September 1975 (*Bull. zool. Nom.* vol. 32: 144-145) Mr Joshua L. Baily, Jr. (*San Diego, California*) proposed that the ruling given in Opinion 200 validating the generic name *Tethys* Linnaeus, 1767 in Gastropoda should be completed by placing the family name concerned, TETHYIDAE Fischer, 1886, on the Official List. (In November 1975 Dr W.O. Cernohorsky (*Auckland Institute and Museum, Auckland, New Zealand*) wrote to point out that the family name dates from Rafinesque, 1815, *Analyse de la Nature*: 141, as "Tethydia".) Mr Baily's application was supported by Dr Allyn G. Smith (*California Academy of Sciences, San Francisco*).

2. Mr Baily's application had asked that the family name APLYSIIDAE should also be placed on the Official List. The generic name *Aplysia* Linnaeus, 1767 had also been validated in Opinion 200. Mr Baily gave the author and date of this family name as "Pilsbry, 1895-6" (but see Clench & Turner, 1962, *New names introduced by H.A. Pilsbry in the Mollusca and Crustacea*, Acad. nat. Sci. Philadelphia. Spec. Publ. 4: 174). However, Dr Cernohorsky, in the letter already cited, showed that the name must be attributed to Swainson, 1840, *Treatise Malacology*: 247, 248, 252 (as "Aplysianae").

3. In October 1975 Dr L. B. Holthuis wrote to the Secretary: "Before the Commission takes action on the family name TETHYIDAE in the Mollusca, it should realise that there exists a family TETHYIDAE J.E. Gray, 1867 (as "Tethyadae"), type-genus *Tethya* Lamarck, 1814, in the Porifera. Both *Tethya* Lamarck, 1814 (*Mém. Mus. Hist. nat. Paris* vol. 1 (1): 69) and TETHYIDAE Gray, 1867 (*Proc. zool. Soc. London*, 1867: 540) are as far as I know still in use in Sponges." This revealed a case of homonymy of family names resulting from similarity, but not identity, of the

names of the type-genera concerned, and reference to the Commission is obligatory under Article 55a of the Code.

4. A further complication was brought to light by Dr Jon-Arne Sneli (*Biologisk Stasjon, Trondheim, Norway*). He wrote in January 1976 to mention not only TETHYIDAE Gray in Porifera, but also TETHYIDAE Huntsman, 1912, in Ascidia, type-genus *Tethyum* Gunnerus, 1765. Huntsman published this name twice in 1912: in *Contrib. Canad. Biol. 1906-1910*: 162, and in *Trans. Canad. Inst. No. 21, Vol. 9 (2)*: 133. The date of the former is given simply as "1912" and under Article 21b must be taken as [31 December] 1912. That of the latter is given as "May 1912" and under the same provision must be taken as [31]May 1912 and as being the prior publication.

5. The next step must be to determine the type-species of the type-genera of these families, and how they were fixed. For *Tethys* and *Aplysia* these were dealt with in Opinion 200 - they are *Tethys fimbria* Linnaeus, 1767 and *Aplysia depilans* Gmelin, 1791, respectively.

6. *Tethya* Lamarck, [1814], *Mem. Mus. Hist. nat. Paris* vol. 1 (1): 69 was established with six originally included species without the fixation of a type-species. Five of these are now either assigned to other genera or treated as *species dubiae*, and only *Alcyonium lyncurium* Linnaeus, 1767, *Syst. Nat.*, ed. 12, vol. 1: 1295 remains in the genus. *Alcyonium aurantium* Pallas, 1766, *Elenchus Zoophytorum*: 357 is cited among the synonyms by Linnaeus and is now regarded as providing the valid specific name. The first valid fixation of a type-species that I have found is by Topsent, 1920, *Bull. Mus. nat. Hist. nat. Paris*, vol. 20: 643. He expressly designated *T. lyncurium* (Linnaeus) and cited *T. aurantium* Pallas as a senior synonym. He also said that Lendenfeld (1903, *Das Tierreich*, Lief. 19: 23) had designated another of the originally included species, *T. cranium* (O.F. Müller) as type-species (which would have led to much confusion), but I have not found any fixation of a type-species for *Tethya* in that work. I should be grateful for any information about earlier fixations than that by Topsent cited here.

7. *Tethyum* Gunnerus, 1765 (*K. norske Vidensk. Selskab Skr.* [= *Det Trond. Selskab Skr.*], vol. 3: 102 was established for *T. sociabile* Gunnerus, *T. papillosum* Gunnerus (a replacement name for *T. coriaceum* Bohadsch, whose work was suppressed under the plenary powers in Opinion 185), and another of Bohadsch's species. In 1770 (*K. dansk. Vidensk. Selsk. Skr.*, vol. 10: 166-167) Gunnerus stated that his *T. sociabile* was a senior synonym of *Ascidia intestinalis* Linnaeus, 1767, but his name has not been used as a valid name and Sneli & Gulliksen (1975, *Bull. zool. Nom.* vol.

32: 127-128, Z.N.(S.) 2087) have asked for its suppression. The first valid type-designation was made by Huntsman, May, 1912, of *T. papillosum* Gunnerus. The correctness of this was accepted by the then principal authority in Ascidia (Hartmeyer, 1913, *Zool. Anz.* vol. 41: 190), but in fact *Tethyum* seems not to have been used as a valid name since Huntsman's work. The nomenclature of these Ascidia appears to be highly confused, and this is not the place to attempt a thorough clarification. Huntsman adopted *Tethyum* and TETHYIDAE to replace *Cynthia* Savigny, 1816, *Halocynthia* Verrill, 1878, and CYNTHIIDAE of authors, but in fact the generic name that has been adopted for his taxon is *Pyura* Molina, 1782 - a name that is not without complications of its own.

8. *Pyura* Molina, 1782 (*Sag. Stor. nat. Chili*: 196) is described, but no species are referred to it. On : 348 the binomen *Pyura chilensis* is mentioned in a bare list and must be regarded as a nomen nudum. In the second edition of Molina's work (1810) the genus is again described but no specific name appears at all. Blainville (1824, *Dict. Sci. nat.* vol. 32: 365) described *Pyura* and listed *Pyura molinae*, but only as a nomen nudum. The earliest author known to me as having referred any species to *Pyura* under an available name is Gay, C., 1854, *Hist. fis. y polit. de Chile.* *Zool.* vol. 8: 393. He described a single species, *Pyura molinae* Gay, and this appears, on the information at present known to me, to be the type-species of *Pyura*, by subsequent monotypy. I am, however, assuming that this is the same species that was before Molina and hence that the concept denoted by the generic name is not altered. If any specialist in Ascidia has reason to believe differently, I hope he will let me know without delay.

9. *Pyura* Molina, 1782, seems to have been overlooked by all authors until Michaelsen rediscovered it (1904, *Mitt. naturh. Mus. Hamburg*, Jahrg. 21: 15). He then stated that he had no intention of adopting it in place of the established *Halocynthia* or of making the corresponding change in the family name. Hartmeyer, however (1908, *Zool. Annalen*, vol. 3: 7, 15, 26) refers to Michaelsen's work and adopts *Pyura* as a valid name in place of *Halocynthia* and proposes PYURIDAE as the family name. (Although not strictly relevant, it may be mentioned that *Holocynthia* had been proposed by Verrill, 1879, as a new replacement name for *Cynthia* Savigny, 1816, a junior homonym of *Cynthia* Fabricius, 1807, a lepidopteran.) Hartmeyer was quoted and followed by Michaelsen (1908, *Mitt. naturh. Mus. Hamburg*, Jahrg. 25: 227-287), and all subsequent authors with the sole exception of Huntsman have adopted his usage.

10. The *Ascidia* are a difficult group and specialists are not very numerous. I have sought the advice of Dr R.H. Millar (*Scottish Marine Biological Association, Dunstaffnage, Argyll, Scotland*) and of Dr Cl. Monniot (*Laboratoire de Biologie des Invertébrés Marins et Malacologie, Muséum national d'Histoire naturelle, Paris*). Both agree that the nomenclature currently in use has been stable since the work of Hartmeyer (Huntsman's work not having had any influence) and that *Tethyum* and TETHYIDAE ought by no means to be revived.

11. If one of the three homonymous family names involved in this case can be disposed of by the simple operation of the Law of Homonymy and by suppressing the name of its type-genus, a means must still be found of dealing with the homonymy between the names of the gastropod and sponge families. It is fortunately easy to find such a way by the device adopted by the Commission in earlier cases of this kind of altering the stem of the name of one of the type-genera. *Tethya* Gray gives as genitive *tethyae* and the family name TETHYIDAE. *Tethys* is a classical Greek noun of a sort that would be expected to give the genitive *tethydis*, although the dictionaries show that its genitive in both ancient Greek and Latin was *tethyos*. The obvious solution is, therefore, to rule under the plenary powers that the stem of *Tethys* for the purposes of Article 29 is TETHYD-, giving the family name TETHYDIDAE.

12. The International Commission on Zoological Nomenclature is accordingly asked

- (1) To use its plenary powers
 - (a) to rule that the stem of the generic name *Tethys* Linnaeus, 1767 for the purposes of Article 29 is TETHYD-
 - (b) to suppress the generic name *Tethyum* Gunnerus, 1765, for the purposes of the Law of Priority but not for those of the Law of Homonymy.
- (2) To place the following names on the Official List of Generic Names in Zoology:
 - (a) *Tethya* Lamarck, [1814] (gender, feminine), type-species, by subsequent designation by Topsent, 1920, *Alcyonium lyncurium* Linnaeus, 1767;
 - (b) *Pyura* Molina, 1782 (gender, feminine), type-species, by subsequent monotypy, *Pyura molinae* Gay, 1854.
- (3) To place the following names on the Official List of Specific Names in Zoology:
 - (a) *aurantium* Pallas, 1766, as published in the binomen *Alcyonium aurantium*;

- (b) *molinae* Gay, 1854, as published in the binomen *Pyura molinae* (specific name of type-species of *Pyura* Molina, 1782).
- (4) To place the following names on the Official List of Family-Group Names in Zoology:
- TETHYDIDAE (correction, through the ruling given under the plenary powers in (1) (a) above, of TETHYIDAE) Rafinesque, 1815 (as "Tethydia"), type-genus *Tethys* Linnaeus, 1767;
 - APLYSIIDAE Swainson, 1840 (as "Aplysianae"), type-genus *Aplysia* Linnaeus, 1767;
 - TETHYIDAE J.E. Gray, 1867 (as "Tethyadae"), type-genus *Tethya* Lamarck, [1814];
 - PYURIDAE Hartmeyer, 1908, type-genus *Pyura* Molina, 1782.
- (5) To place the generic name *Tethyum* Gunnerus, 1765, as suppressed under the plenary powers in (1) (b) above, on the Official Index of Rejected and Invalid Generic Names in Zoology;
- (6) To place the following names on the Official Index of Rejected and Invalid Family-Group Names in Zoology:
- TETHYIDAE Rafinesque, 1815 (as "Tethydia") as an incorrect spelling in consequence of the ruling given under the plenary powers in (1) (a) above;
 - TETHYIDAE Huntsman, 1912, a junior homonym of TETHYIDAE J.E. Gray, 1867.